

REMARKS

Applicants request favorable reconsideration and allowance of the subject application in view of the preceding amendments and the following remarks

Claims 48-58 and 60-62 are presented for consideration. Claim 48 is the sole independent claim. Claim 48 has been amended to clarify features of the subject invention. Support for these changes can be found in the original application, as filed. Therefore, no new matter has been added.

Applicants request favorable reconsideration and withdrawal of the rejections set forth in the above-noted Office Action.

Claims 48, 54, 58 and 60-62 were rejected under 35 U.S.C. § 102(e) as being anticipated by U.S. patent application publication number 2003/0038929 to Tokuda et al. Claims 49-53 were rejected under 35 U.S.C. § 103(a) as being unpatentable over the Tokuda et al. publication as applied above to claim 48, and further in view of U.S. Patent No. 5,746,562 to Hasegawa et al. Claims 55-57 were rejected under 35 U.S.C. §103(a) as being unpatentable over the Tokuda et al. publication as applied above to claim 48, and further in view of U.S. Patent No. 6,319,322 to Ueda et al. Applicants submit that the cited art, whether taken individually or in combination, does not teach or suggest many features of the present invention, as previously recited in independent claim 48. Therefore, these rejections are respectfully traversed. Nevertheless, Applicants submit that independent claim 48, for example, as presented, amplify the distinctions between the present invention and the cited art.

Independent claim 48 recites an exposure apparatus for exposing a wafer to an exposure light via a pattern of a reticle. The apparatus includes a chamber in which the exposure light passes, a conditioner configured to flow an inert gas through the chamber and to purge an atmosphere in the chamber with the inert gas, and a port through which the wafer is transferred between the chamber and another apparatus outside of the exposure apparatus. The port has a load-lock mechanism including a pump configured to create a vacuum below atmospheric pressure in the port and a supply mechanism configured to supply the inert gas into the port after the vacuum is created so that an atmosphere in the port is substantially the same as an atmosphere in the chamber.

Applicants submit that the cited art, whether taken individually or in combination, does not teach or suggest such features of the present invention, as recited in independent claim 48.

The Tokuda et al. publication relates to an exposure system that includes a first unit incorporating a first apparatus for transferring an image of a pattern of a mask onto a substrate, a second unit incorporating a second apparatus having a function different from that of the first apparatus, and a connection unit for connecting the first unit and the second unit. An internal pressure of the connecting section is set to be lower than an internal pressure of either of the first unit and the second unit, and is set to be higher than a pressure of the surroundings in which the connection unit is installed.

The Examiner takes the position that the Tokuda et al. publication teaches a port through which a wafer is transferred between a chamber and another apparatus outside the exposure apparatus, the port having a load-lock mechanism including “a pump configured to create a

vacuum below atmospheric pressure in said port” and a supply mechanism configured to supply the inert gas into the port.

Applicants submit, however, that the Tokuda et al. publication does not teach, in fact, teach or suggest the features of the pump, as suggested by the Examiner. In this regard, the Examiner states that a “negative suction pressure of a clean room exhausting apparatus” in the Tokuda et al. publication discloses the pump recited in independent claim 48. Applicants submit that the Tokuda et al. publication discloses that “the internal pressure of the connection section 53 is set to be higher than the pressure of the clean room 58.” Accordingly, Applicants submit that the Tokuda et al. publication does not teach or suggest the features of a pump configured to create a vacuum below atmospheric pressure in the port, as suggested by the Examiner.

Applicants submit, therefore, that the Tokuda et al. publication does not teach or suggest salient features of Applicants’ present invention, as recited in independent claim 48, including at least the features of the port having a load-lock mechanism including a pump and a supply mechanism, as in the present invention recited in that claim.

Applicants further submit that the remaining art cited does not cure the deficiencies noted above with respect to the Tokuda et al. publication.

The Examiner relies on the Hasegawa et al. patent for teaching an exposure apparatus that includes a plurality of ports, including a first port and a second port, as well as an interface section. The Examiner relies on the Ueda et al. patent for teaching a substrate processing apparatus that includes an aligner process chamber that includes a temperature control

mechanism, as well as a port section that includes a temperature control mechanism having at least one of a heater and a cooler.

Applicants submit, however, that the Hasegawa et al. patent and the Ueda et al. patent, as with the Tokuda et al. publication, do not teach or suggest at least the arrangement of the port having a load-lock mechanism including a pump and a supply mechanism, with the particular configuration of the present invention, as recited in independent claim 48. Accordingly, Applicants submit that the Hasegawa et al. and Ueda et al. patents add nothing to the teachings of the Tokuda et al. publication that would render obvious Applicants' present invention, as recited in independent claim 48.


For the foregoing reasons, Applicants submit that the present invention, as recited in independent claim 48, is patentably defined over the cited art, whether that art is taken individually or in combination.

Dependent claims 49-58 and 60-62 also should be deemed allowable, in their own right, for defining other patentable features of the present invention in addition to those recited in independent claim 48. Further individual consideration of these dependent claims is requested.

Applicants submit that the instant application is in condition for allowance. Favorable reconsideration, withdrawal of the rejections set forth in the above-noted Office Action and an early Notice of Allowance are also requested.

Applicants' undersigned attorney may be reached in our Washington, D.C. office by telephone at (202) 530-1010. All correspondence should be directed to our address listed below.

Respectfully submitted,



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